LE-370/LE-370Z

3.5 Inches Embedded Miniboard

User's Manual

Edition: 1.0

2005/3/23

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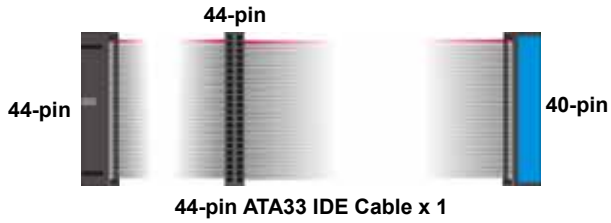
Packing List:

Please check the package before you starting setup the system

Hardware:

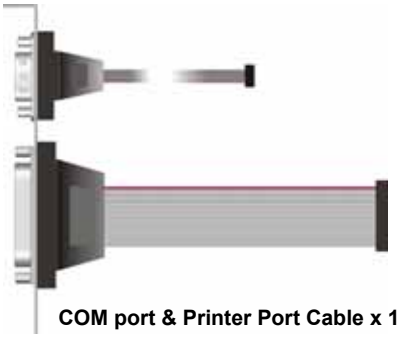
LE-370/LE-370Z motherboard x 1

Cable Kit:

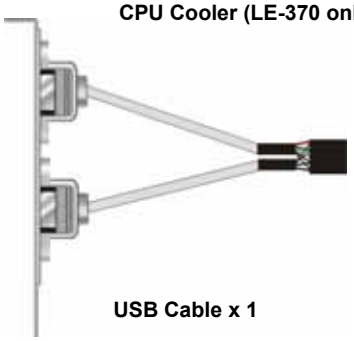


44-pin ATA33 IDE Cable x 1

CPU Cooler (LE-370 only)



COM port & Printer Port Cable x 1



USB Cable x 1

Audio Cable x 1

PS/2 keyboard & mouse cable x 1

Floppy Cable x 1

1 to 3 power output cable

Other Accessories:

Divers CD (including User's Manual) x 1

Printed User's Manual x 1

Index

Chapter 1 <Introduction> 7
1.1 <Product Overview> 7
1.2 <Product Specification> 8
1.3 <Mechanical Drawing> 10
1.4 <Block Diagram> 11
Chapter 2 <Hardware Setup> 13
2.1 <Connector Location> 13
2.2 <Jumper Location & Reference> 14
2.3 <Connector Reference> 15
2.3.1 <Internal Connector> 15
2.3.2 <External Connector> 15
2.4 <CPU & Memory Setup> 16
2.4.1 <CPU> 16
2.4.2 <Memory> 17
2.4.3 <CPU Cooler Installation> 18
2.5 <CMOS Setup> 19
2.6 <Enhanced IDE & CF interface> 20
2.7 <Floppy Port> 21
2.8 <Ethernet Interface> 22
2.9 <Onboard Display Interface> 23
2.9.1 <Analog Display Interface> 23
2.9.2 <Digital Display Interface> 24
2.10 <Onboard Audio Interface> 28
2.11 <GPIO Interface> 29
2.12 <Power Supply & Fan> 30
2.12.1 <Power Input> 30
2.12.2 <Power Output> 30
2.12.3 <Fan connectors> 30

2.13 <Switch & Indicator> 31
Chapter 3 <System Setup> 33
3.1 <Display Configuration> 33
Chapter 4 <BIOS Setup> 35
Appendix A <I/O Port Pin Assignment> 37
A.1 <IDE Port> 37
A.2 <Floppy Port> 38
A.3 <IrDA Port> 38
A.4 < VGA Port > 38
A.5 <Serial Port> 39
A.6 <LAN Port> 39
A.7 <PS/2 Keyboard & Mouse Port> 39
Appendix B <Flash BIOS> 41
B.1 BIOS Auto Flash Tool 41
B.2 Flash Method 41
Appendix C <Hardware Test> 43
C.1 <Power Consumption Test> 43
Contact Information 44

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Chapter 1 <Introduction>

1.1 <Product Overview>

LE-370/LE-370Z are the 3.5 inches embedded miniboards based on Intel 852GME/GM of platform, with Intel Pentium M/Celeron M processors supported, onboard VGA, LAN, Audio, USB2.0, CF, LVDS, and mini-PCI to meet the variable applications of users. **LE-370Z** with onboard Intel Celeron M processor for ultra low power can offer the fanless solution for such as medical applications.

Intel 852GME/GM & ICH4 Chipset

The board integrates Intel 852GME/GM and ICH4 chipset, to provide built-in Intel Extreme Graphics Technology, and supports DDR200/266/333 memory up to 1G of capacity.

18/24-bit LVDS LCD interface

The board provides onboard 18/24-bit LVDS LCD interface, supports up to 1600 x 1200 of UXGA high resolution for LE-370, and up to 1400 x 1050 for LE-370Z.

Flexible Extension Interfaces

The board provides one Mini-PCI socket for wireless LAN module, video capture card and IEEE1394 add-on card. The board also provide optional PCI interface with a riser card to have up to 2 PCI devices.

1.2 <Product Specification>

General Specification		
	LE-370	**LE-370Z**
Form Factor	3.5 inches Embedded Miniboard	
CPU	Intel Pentium M/Celeron M Package: FC-PGA478 FSB: 400/533MHz	Embedded Intel Celeron M Ratio: 600MHz FSB: 400MHz
Memory	1 x 184-pin DDR 266/333 SDRAM up to 1GB ECC memory supported	1 x 184-pin DDR 200/266 SDRAM up to 1GB Non-ECC supported
Chipset	Intel 852GME and ICH4	Intel 852GM and ICH4
BIOS	Phoenix-Award v6.00PG 4Mb PnP flash BIOS	
Green Function	Power saving mode includes doze, standby and suspend modes. ACPI version 1.0 and APM version 1.2 compliant	
Watchdog Timer	System reset programmable watchdog timer with 1 ~ 255 sec./min. of timeout value	
Real Time Clock	Intel ICH4 built-in RTC with lithium battery	
Enhanced IDE	Enhanced UltraDMA100 IDE interface supports dual channels and up to 2 ATAPI devices One 44-pin IDE connector onboard	
Multi-I/O Port		
Chipset	Winbond W83627HF-AW controller	
Serial Port	One external & one internal RS-232 serial ports	
USB Port	Two Hi-Speed USB 2.0 ports with 480Mbps of transfer rate	
Parallel Port	One bi-direction parallel port with SPP/ECP/EPP mode	
Floppy Port	One slim type Floppy port	
IrDA Port	One IrDA compliant Infrared interface supports SIR	
K/B & Mouse	External PS/2 keyboard and mouse ports on rear I/O panel	
GPIO	One 8-bit programmable GPIO interface	
Hardware Monitor	Fan speed, CPU temperature and voltage monitoring	
VGA Display Interface		
Chipset	Intel 852GME/GM built-in Intel Extreme graphics	
Frame Buffer	Intel DVMT with up to 64MB of frame buffer size	
Display Type	CRT, LCD monitor with analog display	
Connector	External DB15 female connector on rear I/O panel	
LCD Interface		
Chipset	Intel 852GME/GM built-in LVDS interface	
Interface	18/24-bit LVDS interface 12V backlight inverter connector	

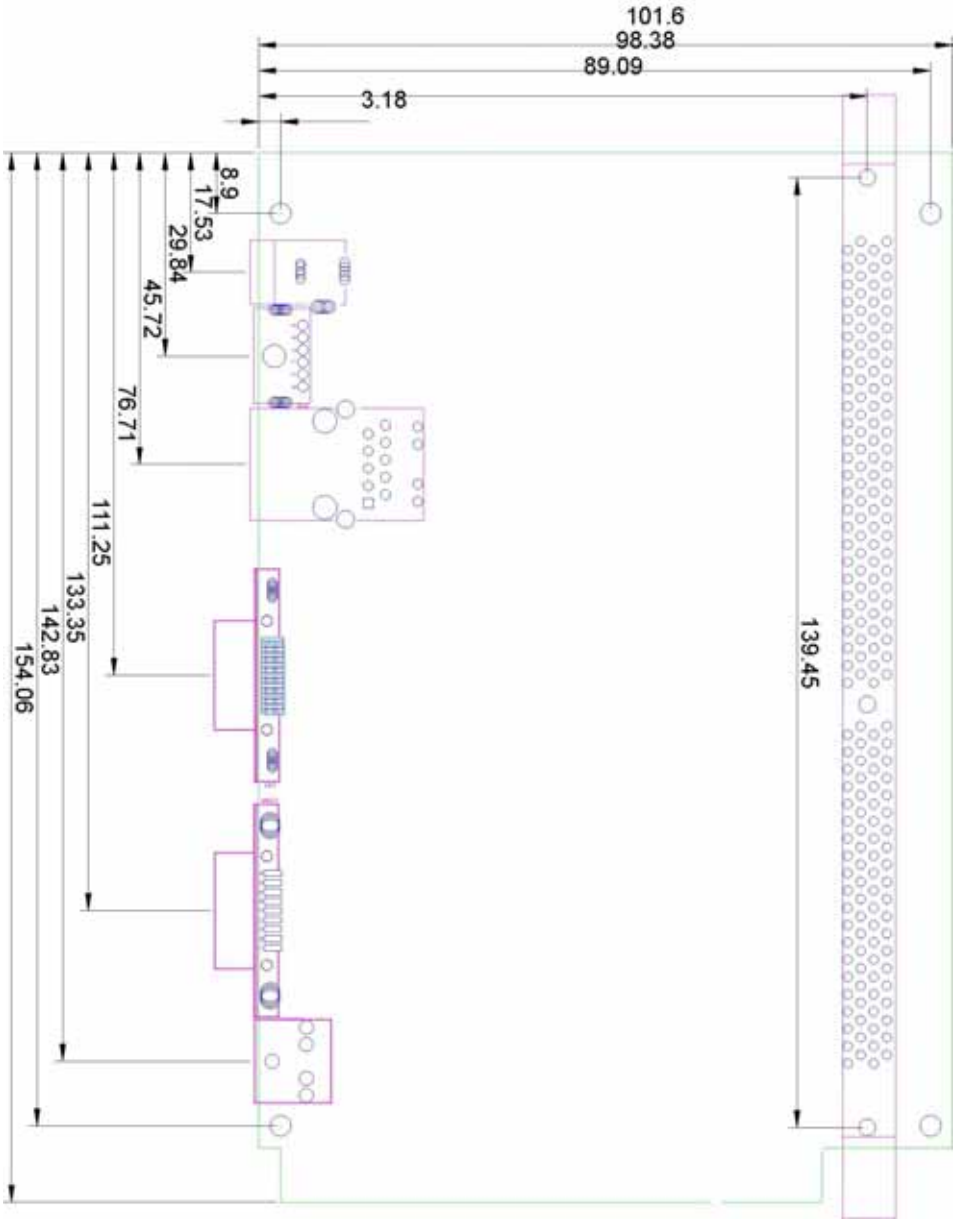
Ethernet Interface	
Controller	Intel 82562ET PHY
Type	10Base-T / 100Base-TX auto-switching Fast Ethernet Full duplex, IEEE802.3U compliant
Connector	External RJ45 connectors with LED on rear I/O panel
Audio Interface	
Chipset	REALTEK ALC201A
Interface	2 channel 3D audio with Line-in, Line-out and MIC-in
Connector	External Audio phone jack for Line-out Onboard audio connector with pin header Onboard CD-IN connector
Expansive Interface	
Mini-PCI	1 x 32-bit 5V/3.3V Mini-PCI socket
PCI	1 x optional PCI interface supports up to two PCI devices through riser card
Solid State Disk	
DOM	IDE1 supports 44-pin DOM (DiskOnModule)
CompactFlash	1 x CompactFlash Type 1 socket on solder side
Power and Environment	
Power Requirement	DC 12V input 1 x DC jack on I/O panel or 1 x 4-pin DC connector onboard
Dimension	154 (L) x 101 (H) mm
Temperature	Operating within 0 ~ 60°C (32 ~ 140°F) Storage within -20 ~ 85°C (-4 ~ 185°F)

Software support	
Operation System	Windows 98SE/ME, Windows 2000, Windows XP Linux (Fedora Core 1, Mandrake 9.2 and Red Hat 9.0) Linux Kernel version 2.4 or later

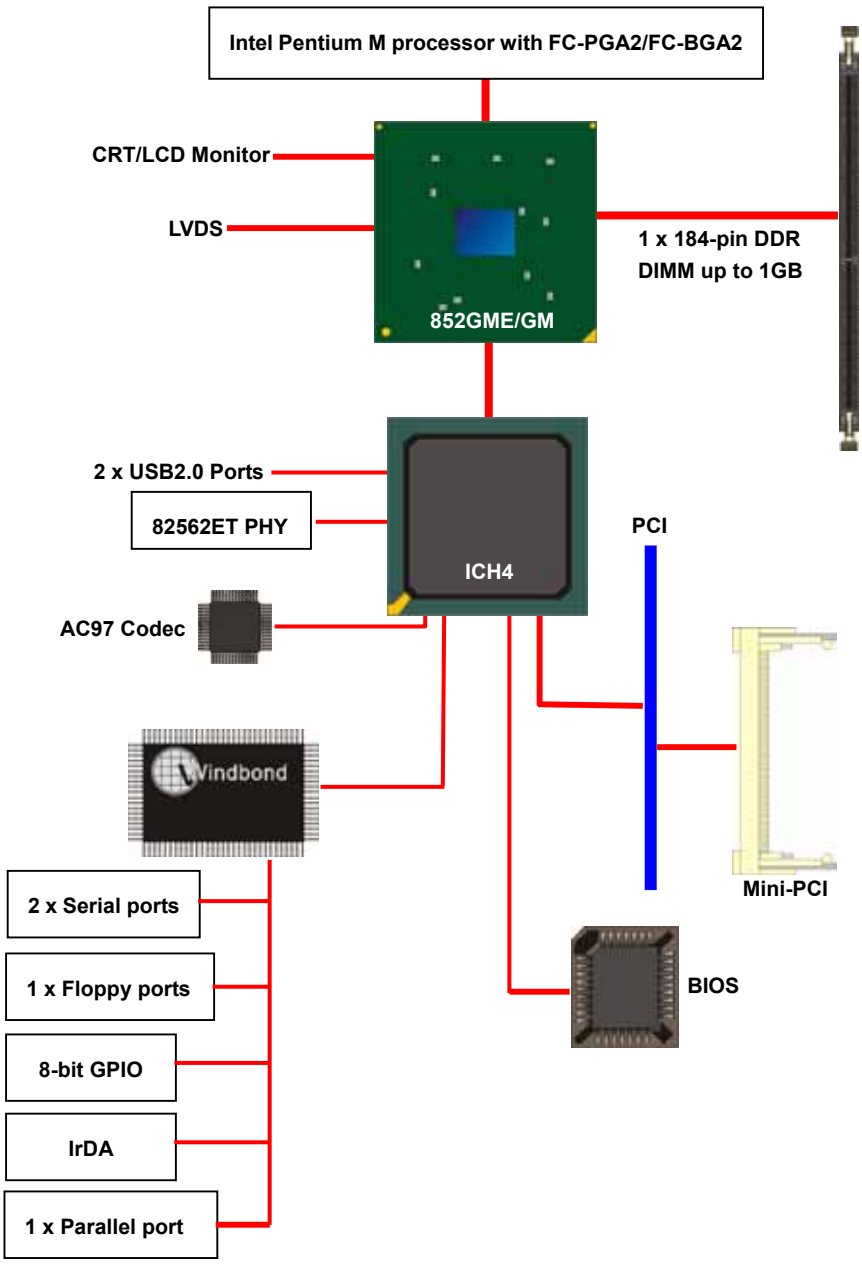
Ordering Code	
LE-370	Intel Pentium M/Celeron M with socket479, VGA, AC97 Audio, LVDS, CF, PCI, Mini-PCI, 2 x RS232, LAN,
LE-370Z	Same with above but with onboard Intel Celeron M 600 processor

1. The specifications may be different as the actual production.
For further product information please visit the website at http://www.commell.com.tw

1.3 <Mechanical Drawing>



1.4 <Block Diagram>



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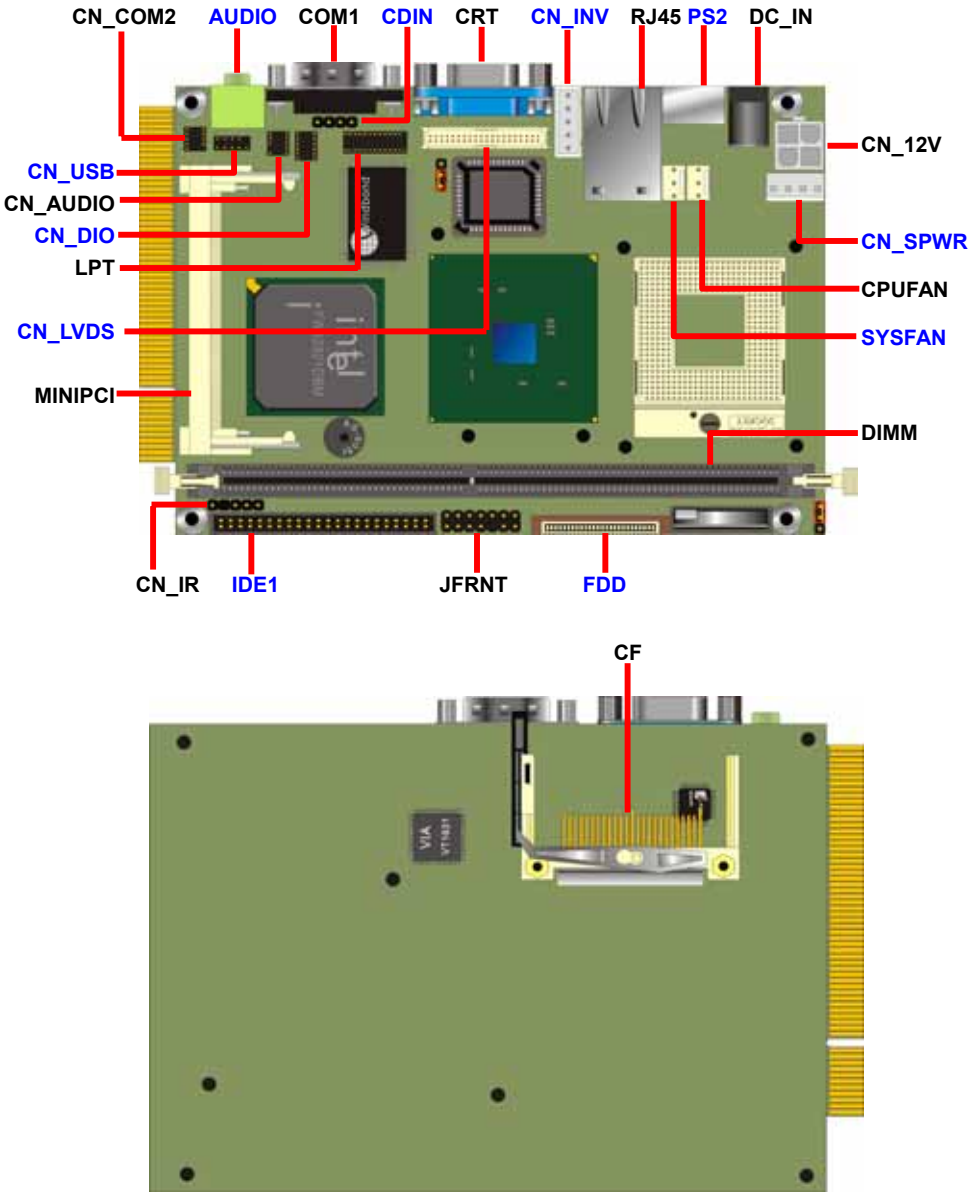
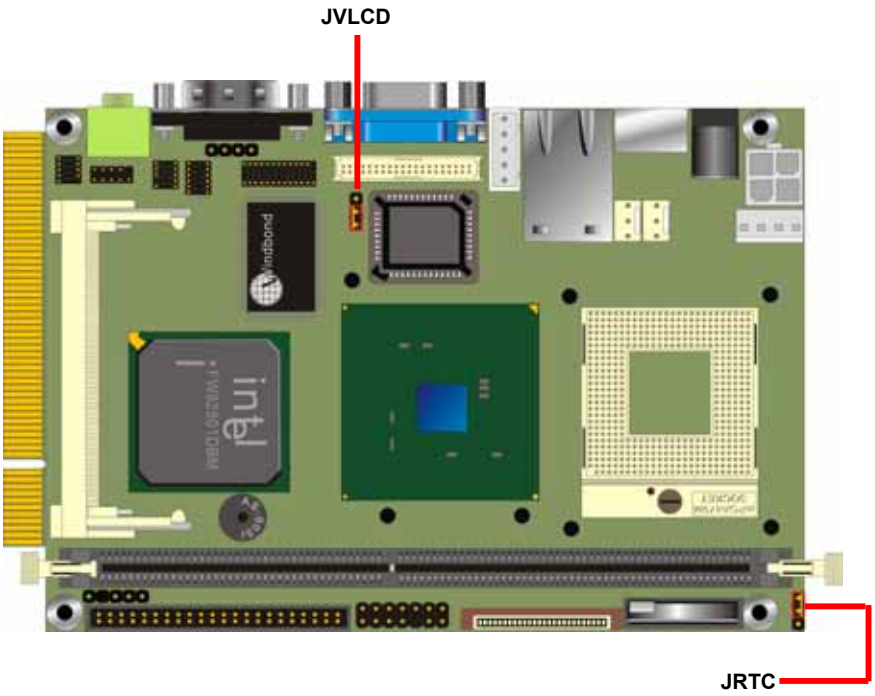
Chapter 2 <Hardware Setup>

2.1 <Connector Location>



2.2 <Jumper Location & Reference>

Jumper	Function
JRTC	CMOS Operating/Clear Setting
JVLCD	LCD panel voltage setting



2.3 <Connector Reference>

2.3.1 <Internal Connector>

Connector	Functior	Remark
DIMM	184-pin DDR SDRAM DIMM	Standard
IDE1	44-pin primary IDE connector	Standard
FDD	26-pin slim type floppy connector	Standard
CN_12V	4-pin DC input connector	Standard
CDIN	4-pin CD-ROM audio input connector	Standard
CN_DIO	6 x 2-pin digital I/O connector	Standard
CN_USB	5 x 2-pin USB connector	Standard
CPUFAN	3-pin CPU cooler fan connector	Standard
SYSFAN	3-pin system cooler fan connector	Standard
CN_COM2	5 x 2-pin RS232 serial port	Standard
CN_IR	5-pin IrDA connector	Standard
CF	Compact Flash Type I socket	Standard
MINI_PCI	Mini-PCI interface	Standard
CN_LVDS	40-pin LVDS LCD interface	Standard
CN_INV	5-pin LCD backlight inverter connector	Standard
LPT	26-pin parallel port interface	Standard
JFRNT	14-pin front panel switch/indicator connector	Standard
CN_SPWR	4-pin DC 5V/12V output connector	Standard

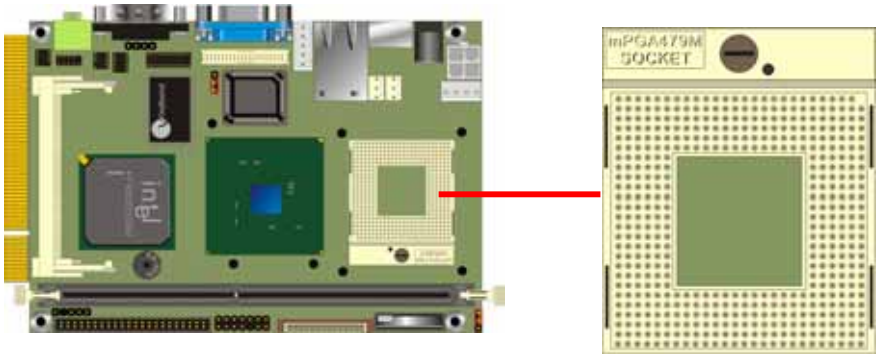
2.3.2 <External Connector>

Connector	Functior	Remark
CRT	DB15 VGA connector	Standard
RJ45	RJ45 LAN connector	Standard
COM1	Serial port connector	Standard
PS2	PS/2 Keyboard/Mouse connector	Standard
Audio	Audio Line-out port	Standard
DC_IN	DC input jack	Standard

2.4 <CPU & Memory Setup>

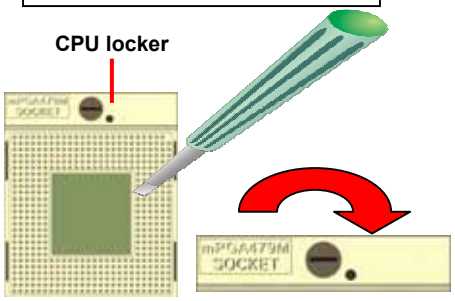
2.4.1 <CPU>

LE-370 supports onboard socket479 for Intel Pentium M/Celeron M processors with FC-PGA478 package, 400/533MHz of front side bus; **LE-370Z** integrates onboard Intel Celeron M 600MHz processor with 400MHz of front side bus. For **LE-370** please follow the instruction to install the CPU properly.



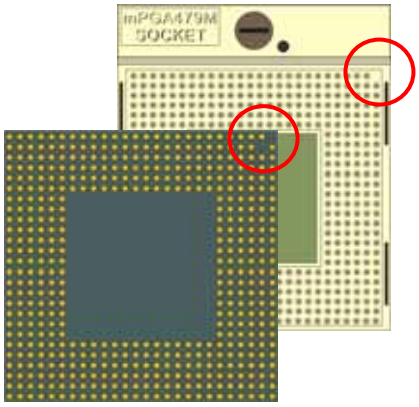
CPU Socket

1. Use flat-type Screw Driver to unlock the CPU locket



Unlock way

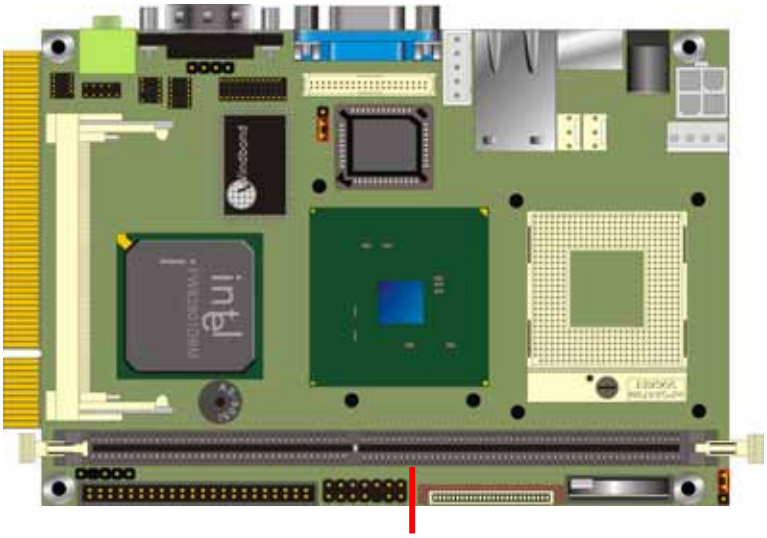
2. Find the pin direction and install the processor on the socket.

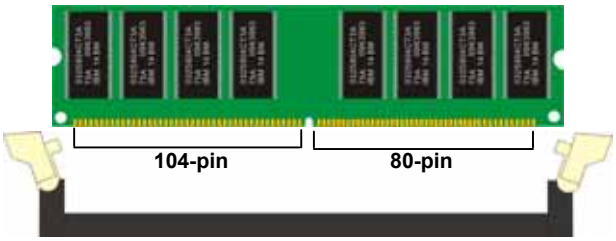


3. Lock the socket well.

2.4.2 <Memory>

LE-370 supports DDR266/333 up to 1GB with ECC; **LE-370Z** supports DDR200/266 up to 1GB with unbuffered, non-ECC memory module.





Please check the pin number to match the socket side well before installing memory module.

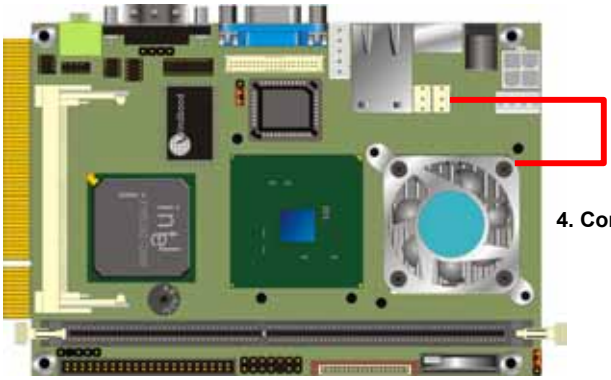
2.4.3 <CPU Cooler Installation>

The **LE-370** provides one CPU cooler; please follow the instruction below to finish the installation. The **LE-370Z** comes with a heat sink on embedded processor, no fan is required.

1. Install CPU properly

2. Put the cooler on the socket

3. Press the clips into the through hole



4. Connect with CPUFAN connector

2.5 <CMOS Setup>

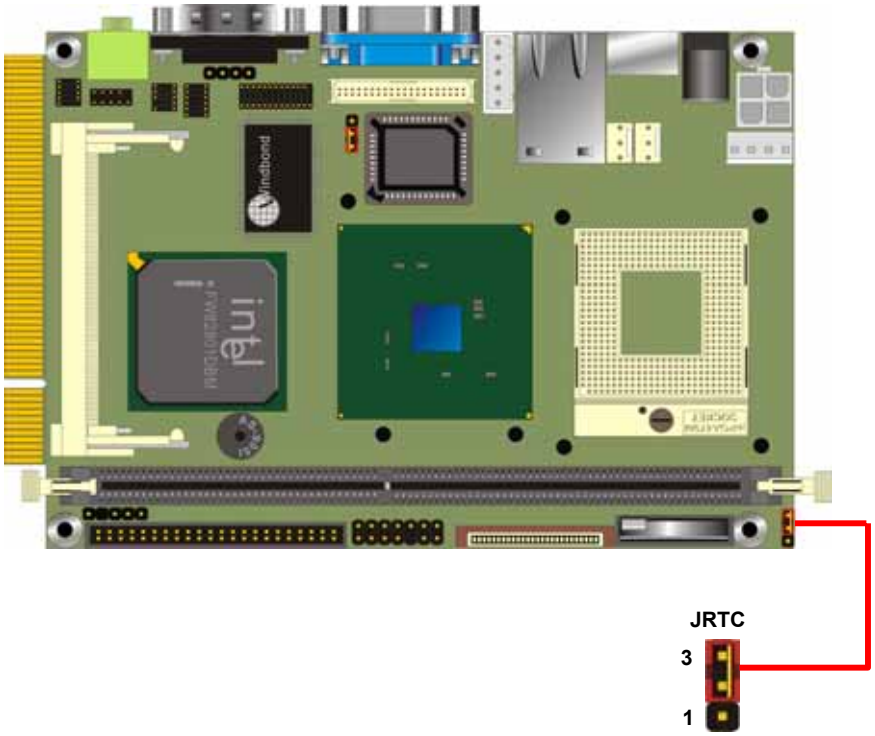
The board's data of CMOS can be setting in BIOS. If the board refuses to boot due to inappropriate CMOS settings, here is how to proceed to clear (reset) the CMOS to its default values.

Jumper: JRTC

Type: Onboard 3-pin jumper

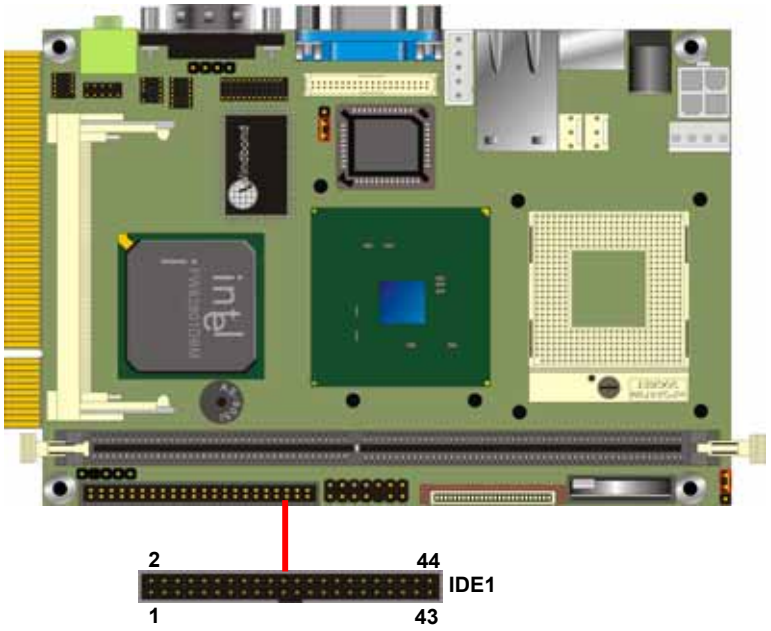
JRTC	Mode
1-2	Clear CMOS
2-3	Normal Operation

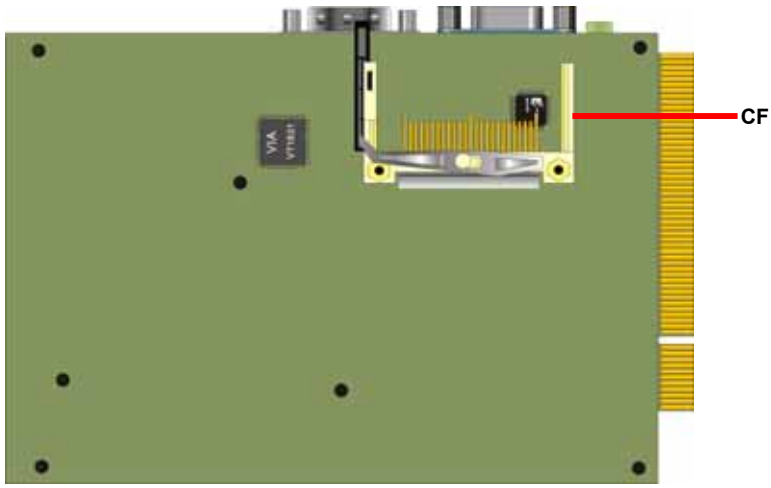
Default setting



2.6 <Enhanced IDE & CF interface>

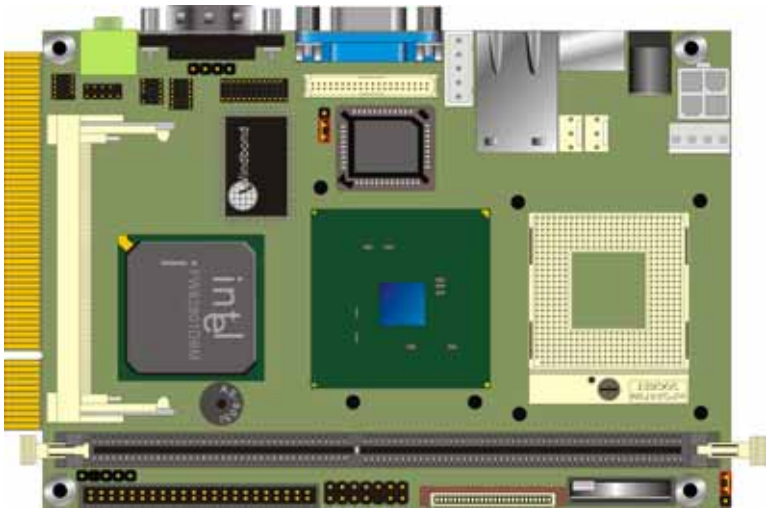
The board supports one UltraDMA133 IDE interface, and one CompactFlash Type 1 socket with secondary IDE mode, the 44-pin IDE1 connector can support up to 2 ATAPI devices through IDE cable.



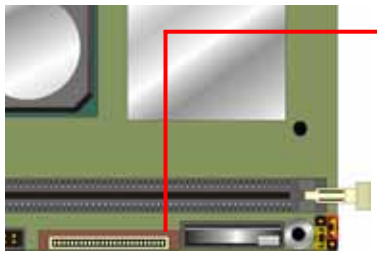


2.7 <Floppy Port>

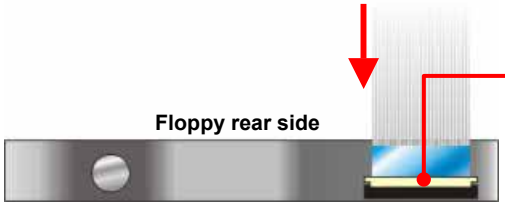
The board provides a slim type floppy port; please use the 26-pin ribbon cable in the package to connect the floppy device.



FDD



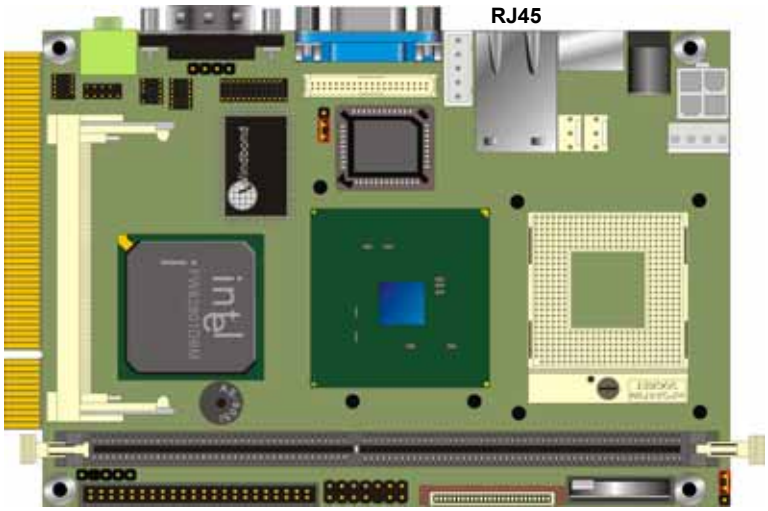
1. Lift up the brown plastic bar
2. Slot the cable in (Blue paste for brown bar side)
3. Press back the plastic bar

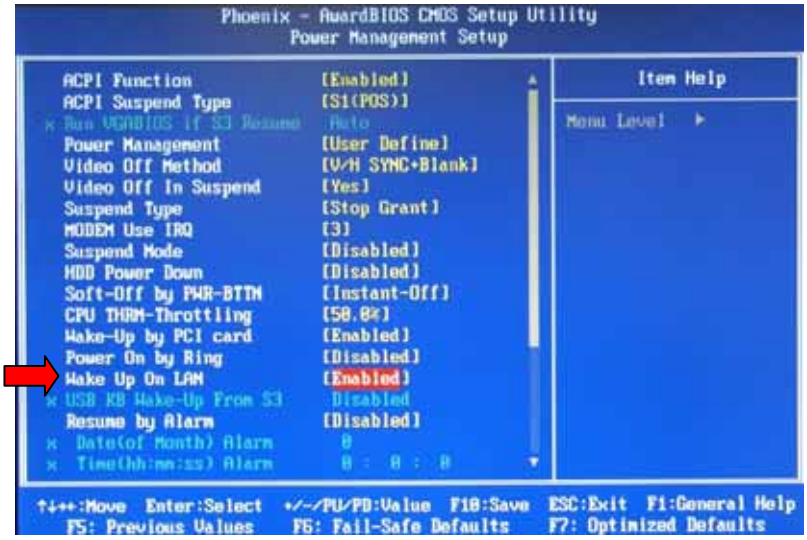


4. Lift up this plastic bar
5. Slot the cable in (Blue paste for outside)
6. Press back the plastic bar

2.8 <Ethernet Interface>

The board integrates Ethernet controller with Intel 82562ET PHY, full compliance with IEEE 802.3u 100Base-T specifications and IEEE 802.3x Full Duplex Flow Control, the board supports Wake-Up-On-LAN by BIOS configurable.




Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI Function [Enabled]
ACPI Suspend Type [S1(POS)]
Run VGABIOS if S3 Resume Auto
Power Management [User Define]
Video Off Method [V/H SYNC+Blank]
Video Off In Suspend [Yes]
Suspend Type [Stop Grant]
MODEM Use IRQ [3]
Suspend Mode [Disabled]
HDD Power Down [Disabled]
Soft-Off by PWR-BTTN [Instant-Off]
CPU THRM-Throttling [50.0%]
Wake-Up by PCI card [Enabled]
Power On by Ring [Disabled]
Wake Up On LAN [Enabled]
USB KB Wake-Up From S3 Disabled
Resume by Alarm [Disabled]
Date(of Month) Alarm 0
Time(hh:mm:ss) Alarm 0 : 0 : 0
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

For Wake Up On LAN function, please enable this option in the BIOS

2.9 <Onboard Display Interface>

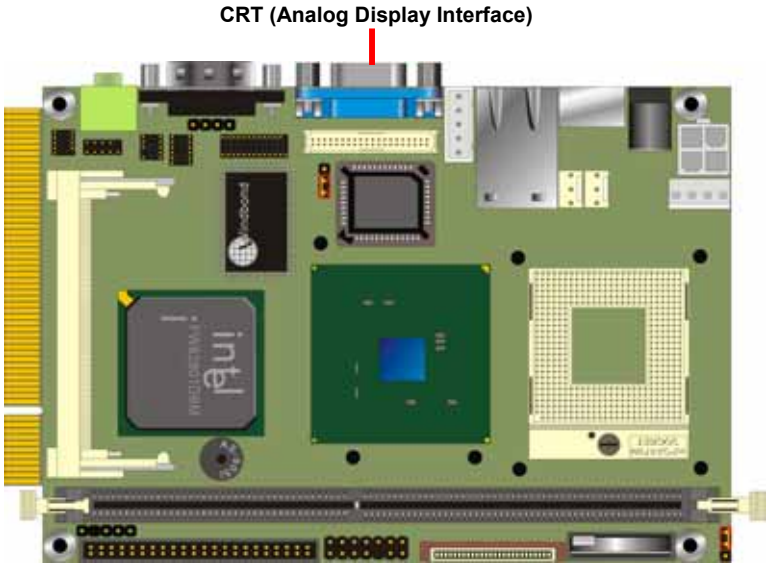
Based on Intel 852GME/GM chipset with built-in Intel Extreme Graphics, the board provides onboard VGA display interface, and one 18/24-bit LVDS LCD interface, supports up to 1600 x 1200 of resolution for **LE-370** (with 852GME) and 1400 x 1050 for **LE-370Z** (with 852GM). The two display interfaces can be set for dual display with extended desktop mode or clone mode.

Below are the main features lists:

- 128-bit 2D/3D graphics engine
- Up to 64MB of dynamic video memory allocation.
- Hardware Motion Compensation for MPEGII
- Dual display supported for Clone mode and Extended Desktop mode

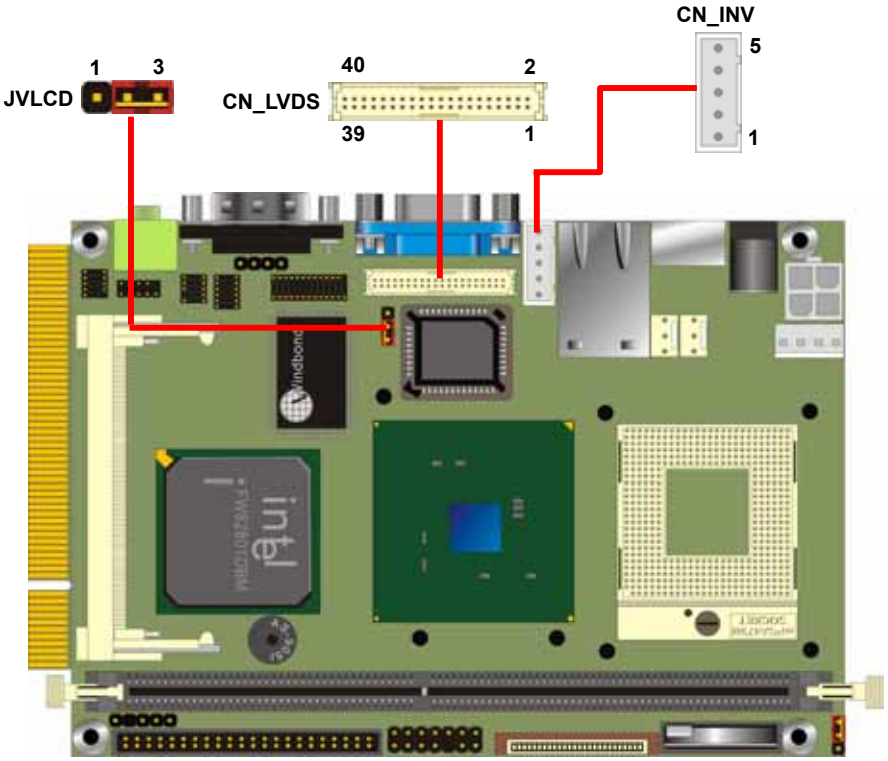
2.9.1 <Analog Display Interface>

The onboard VGA display comes with standard DB15 connector on real I/O panel.



2.9.2 <Digital Display Interface>

The onboard digital display interface comes with a 40-pin header connector to provide 18/24-bit LVDS LCD interface, and one backlight inverter connector for powering and enable/disable control, the jumper **JVLCD** is to set the panel voltage.



Connector: **CN_INV**
Type: 5-pin LVDS Power Header

Pin	Description
1	+12V
2	GND
3	GND
4	GND
5	ENABKL

Connector: **JVLCD**
Type: 3-pin Power select Header

Pin	Description
1	VCC
2	LCDVCC
3	VCC3

Connector: **CN_LVDS**
Type: onboard 40-pin connector for LVDS connector
Connector model: **HIROSE DF13-40S**

Pin	Signal	Pin	Signal
1	LCDVCC	2	LCDVCC
3	GND	4	GND
5	ATX0-	6	BTX0-
7	ATX0+	8	BTX0+
9	GND	10	GND
11	ATX1-	12	BTX1-
13	ATX1+	14	BTX1+
15	GND	16	GND
17	ATX2-	18	BTX2-
19	ATX2+	20	BTX2+
21	GND	22	GND
23	ATX3-	24	BTXCK-
25	ATX3+	26	BTXCK+
27	GND	28	GND
29	ATXCK-	30	BTX3-
31	ATXCK+	32	BTX3+
33	GND	34	GND
35	N/C	36	N/C
37	N/C	38	N/C
39	N/C	40	N/C

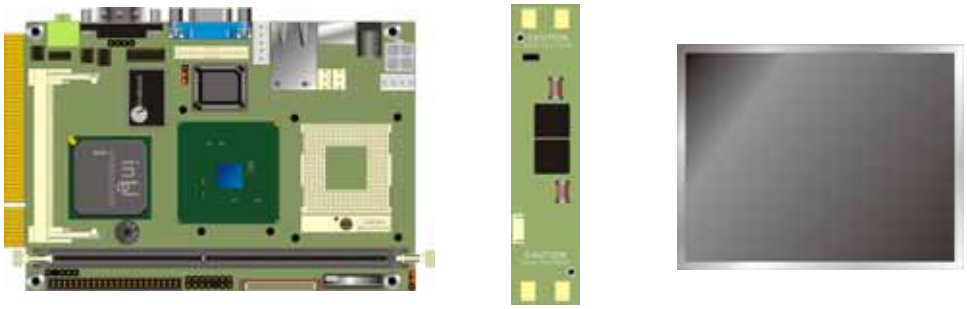
To setup the LCD, you need the component below:

1. A panel with LVDS interfaces.
2. An inverter for panel's backlight power.
3. A LCD cable and an inverter cable.

For the cables, please follow the pin assignment of the connector to make a cable, because every panel has its own pin assignment, so we do not provide a standard cable; please find a local cable manufacture to make cables.

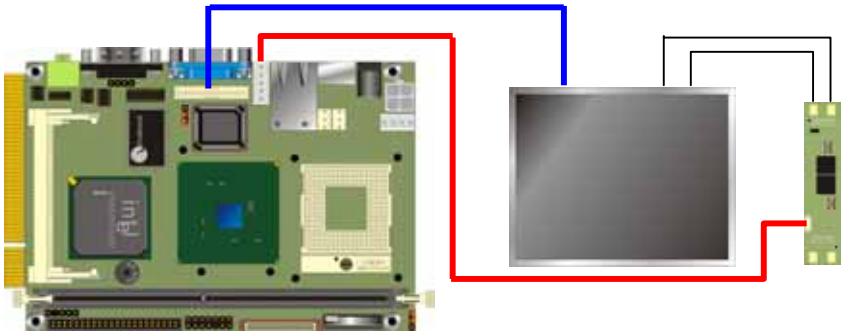
LCD Installation Guide:

1. Preparing the **LE-370**, **LCD panel** and the **backlight inverter**.

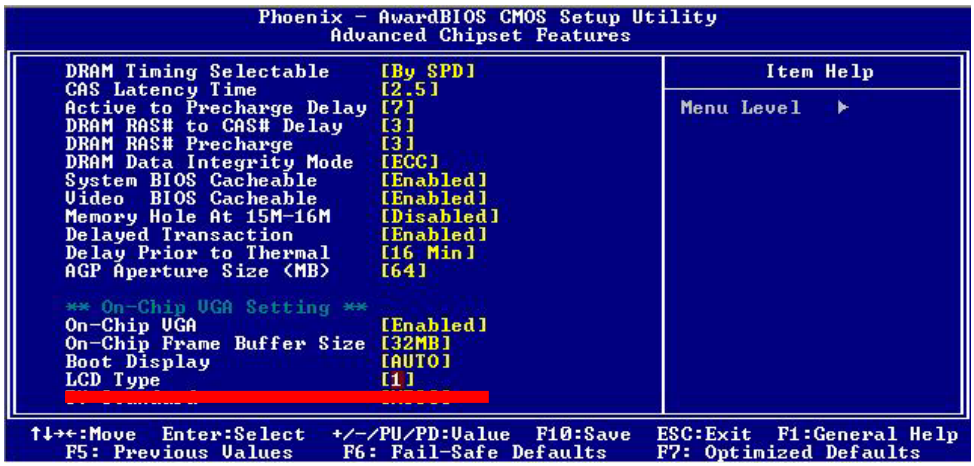


2. Please check the datasheet of the panel to see the voltage of the panel, and set the jumper **JVOLT** to +5V or +3.3V.
3. You would need a LVDS type cable.

4. To connect all of the devices well.



After setup the devices well, you need to select the LCD panel type in the BIOS.


Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features
DRAM Timing Selectable [By SPD]
CAS Latency Time [2.5]
Active to Precharge Delay [7]
DRAM RAS# to CAS# Delay [3]
DRAM RAS# Precharge [3]
DRAM Data Integrity Mode [ECC]
System BIOS Cacheable [Enabled]
Video BIOS Cacheable [Enabled]
Memory Hole At 15M-16M [Disabled]
Delayed Transaction [Enabled]
Delay Prior to Thermal [16 Min]
AGP Aperture Size (MB) [64]
** On-Chip VGA Setting **
On-Chip VGA [Enabled]
On-Chip Frame Buffer Size [32MB]
Boot Display [AUTO]
LCD Type [1]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

The panel type mapping is list below:

BIOS panel type selection form			
For 18-bit color		For 24-bit color	
NO.	Output format	NO.	Output format
1	640 x 480	8	1024 x 768
2	800 x 600	9	1280 x 1024 Dual Channel
3	1024 x 768	10	1400 x 1050 Dual Channel
4	1280 x 1024	11	1600 x 1200 Dual Channel
5	1400 x 1050 Dual Channel @ 108Mhz	13	1024 x 768 Dual Channel
6	1400 x 1050 Dual Channel @ 122Mhz	14	1920 x 1080 Dual Channel
7	1600 x 1200 Dual Channel	15	1280 x 768
12	1024 x 768 Dual Channel		

Notice: **Panel type 7, 11 and 14 are only supported by LE-370, not for LE-370Z**

2.10 <Onboard Audio Interface>

The board integrates onboard AC97 audio with REALTEK ALC201A, supports 18-bit ADC and DAC resolution, and Line-out, Line-in and MIC-in input/output interfaces.

Connector: CN_AUDIO

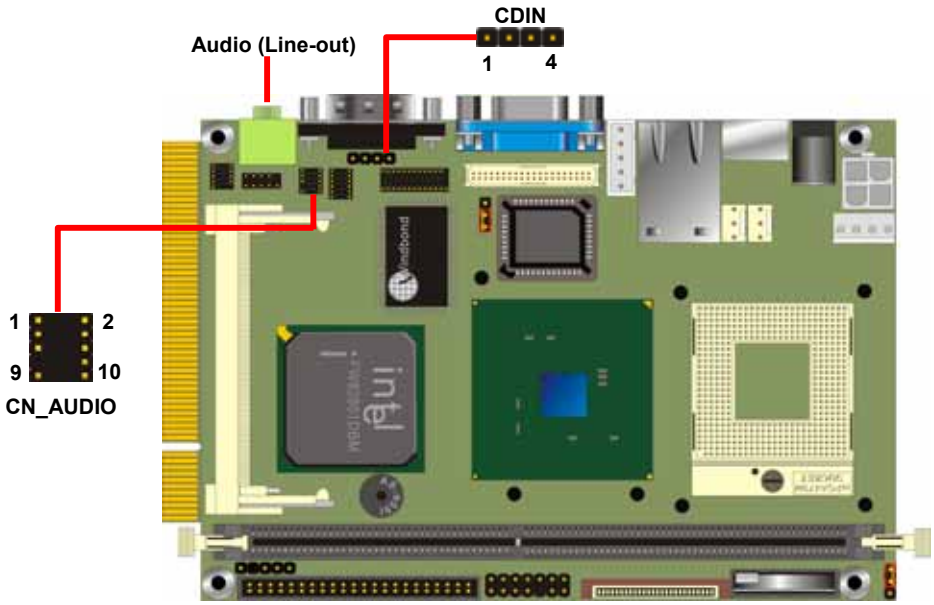
Type: 10-pin (2 x 5) 1.27mm x 2.54mm-pitch header

Pin	Description	Pin	Description
1	Line – Left	2	Ground
3	Line – Right	4	MIC1
5	MIC2	6	Ground
7	N/C	8	Line Out – Left
9	Line Out – Right	10	Ground

Connector: CDIN

Type: 4-pin header (pitch = 2.54mm)

Pin	Description		
1	CD – Left		
2	Ground		
3	Ground		
4	CD – Right		

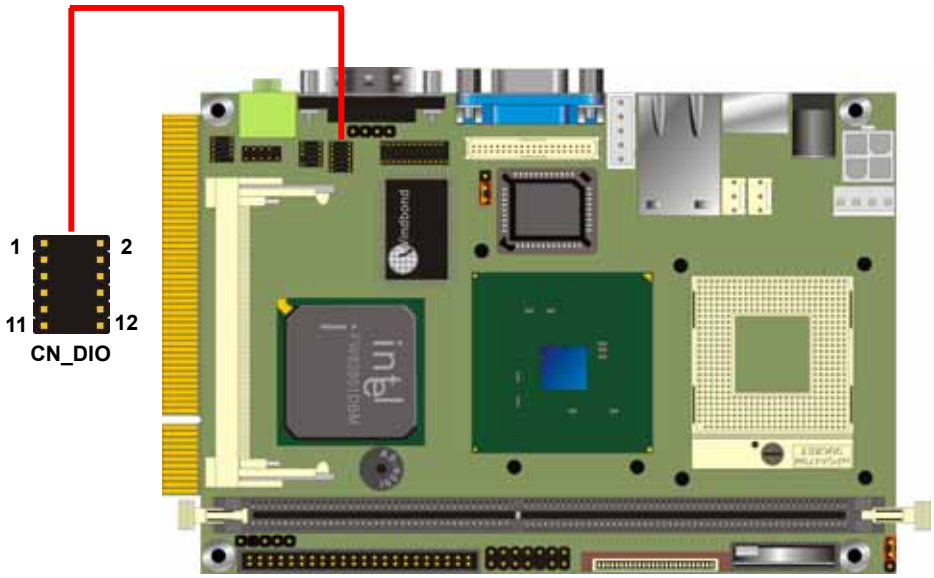


2.11 <GPIO Interface>

The board offers 8-bit digital I/O to customize its configuration to your control needs. For example, you may configure the digital I/O to control the opening and closing of the cash drawer or to sense the warning signal from a tripped UPS.

Connector: **CN_DIO**
Type: onboard 2 x 6-pin 1.27mm x 2.54mm-pitch header

Pin	Description	Pin	Description
1	Ground	2	Ground
3	LGP0	4	LGP4
5	LGP1	6	LGP5
7	LGP2	8	LGP6
9	LGP3	10	LGP7
11	VCC	12	+12V



2.12 <Power Supply & Fan>

2.12.1 <Power Input>

The board requires DC 12V input with onboard DC jack or 4-pin 12V DC connector.

Connector: **CN_12V**
Type: 4-pin standard ATX2.0 +12V power connector

Pin	Description	Pin	Description
1	Ground	2	Ground
3	+12V	4	+12V

2.12.2 <Power Output>

The board also provides one 4-pin connector with +5V/+12V output.

Connector: **CN_SPWR**
Type: 4-pin P-type connector for +5V/+12V output

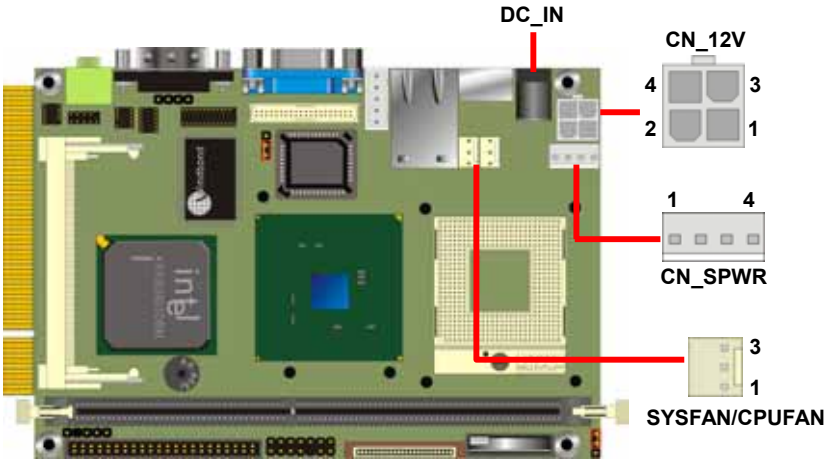
Pin	Description	Pin	Description	Pin	Description	Pin	Description
1	+12V	2	Ground	3	Ground	4	+5V

PS: Maximum output current for 5V/1A & 12V/1A

2.12.3 <Fan connectors>

Connector: **CPUFAN**, **SYSFAN**
Type: 3-pin fan wafer connector

Pin	Description	Pin	Description	Pin	Description
1	Ground	2	+12V	3	Fan Control

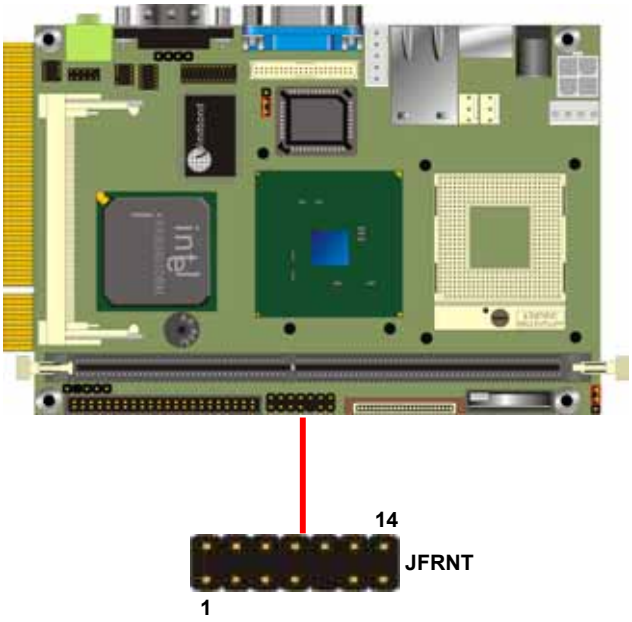


2.13 <Switch & Indicator>

The **JFRNT** provides front control panel of the board, such as power button, reset and beeper, etc. Please check well before you connecting the cables on the chassis.

Connector: **JFRNT**
Type: onboard 14-pin (2 x 7) 2.54-pitch header

Function	Signal	PIN		Signal	Function
IDE LED	VCC	1	2	VCC	Power LED
	Active	3	4	N/C	
Reset	Reset	5	6	GND	
	GND	7	8	VCC	Speaker
	N/C	9	10	N/C	
Power Button	PWRBT	11	12	N/C	
	5VSB	13	14	SPKIN	



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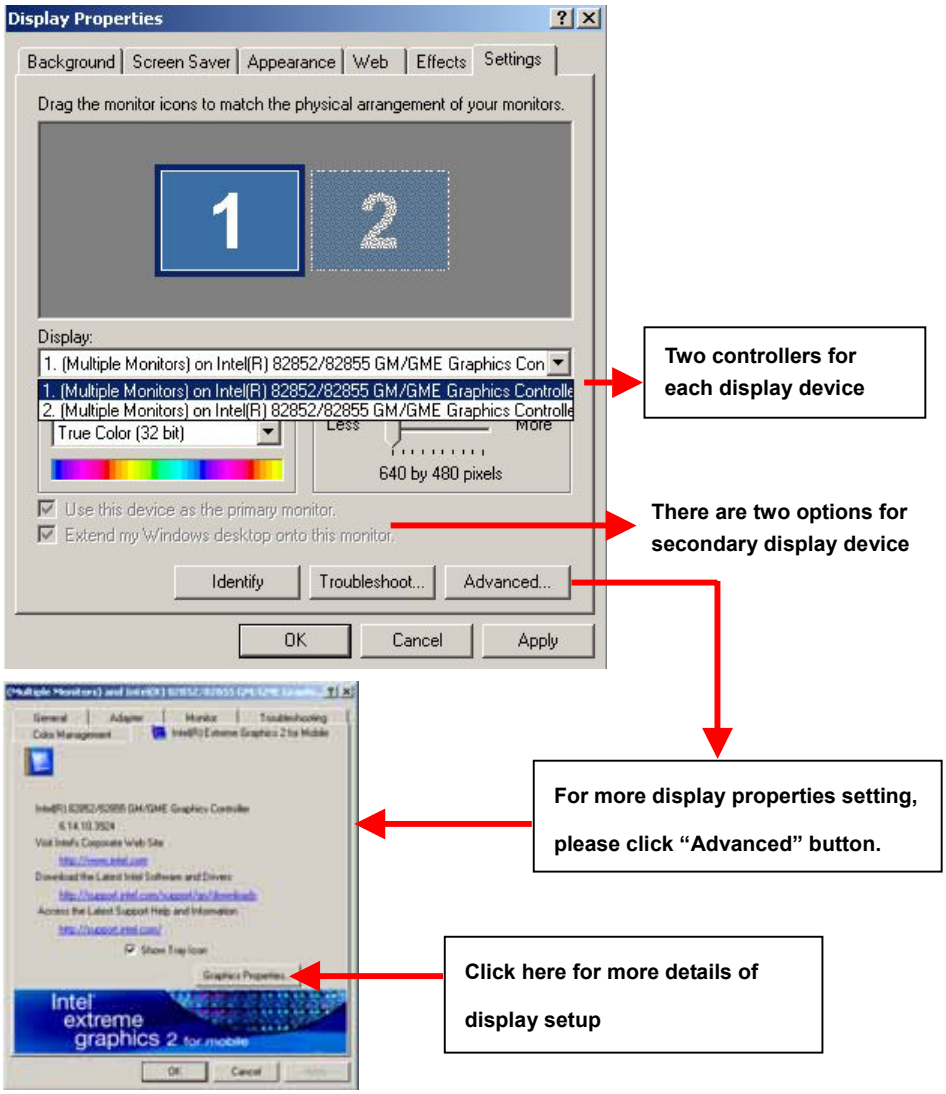
Chapter 3 <System Setup>

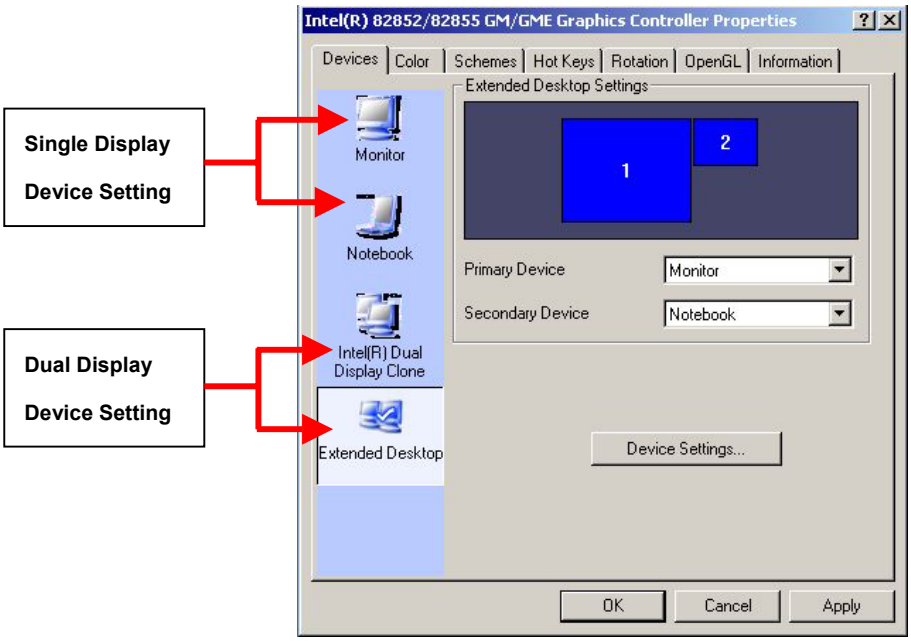
3.1 <Display Configuration>

The board provides onboard VGA with DB15 analog display interface, and LVDS LCD interface for digital display, when connecting two display devices, you can enable dual display function with clone mode or extended desktop mode.

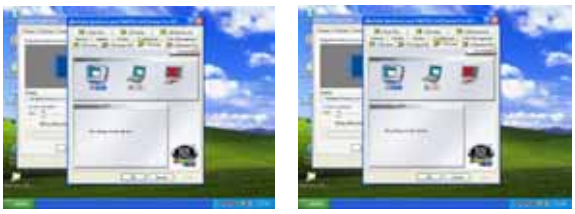
Before setup the video setting, please install the VGA driver well.



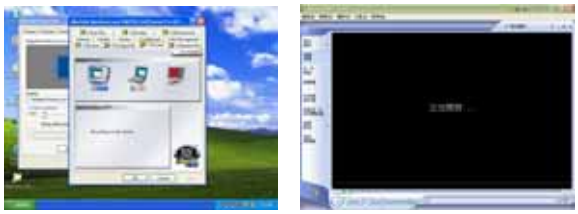
Please select Devices for advanced device setting.



When you set dual display clone mode, you'll see the same screen display on two devices.



When you set the dual display for extended desktop mode, you can have the independent desktop on the second device.



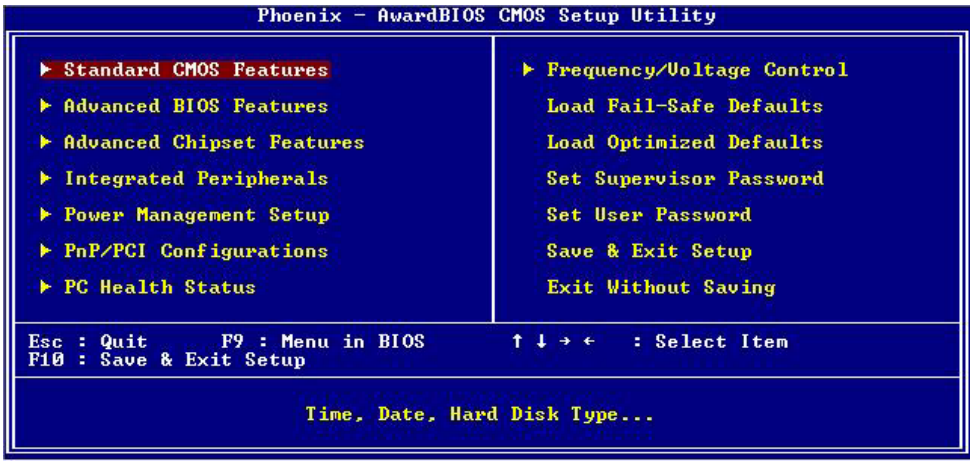
Chapter 4 <BIOS Setup>

The single board computer uses the Award BIOS for the system configuration. The Award BIOS in the single board computer is a customized version of the industrial standard BIOS for IBM PC AT-compatible computers. It supports Intel x86 and compatible CPU architecture based processors and computers. The BIOS provides critical low-level support for the system central processing, memory and I/O sub-systems.

The BIOS setup program of the single board computer let the customers modify the basic configuration setting. The settings are stored in a dedicated battery-backed memory, NVRAM, retains the information when the power is turned off. If the battery runs out of the power, then the settings of BIOS will come back to the default setting. The BIOS section of the manual is subject to change without notice and is provided here for reference purpose only. The settings and configurations of the BIOS are current at the time of print, and therefore they may not be exactly the same as that displayed on your screen.

To activate CMOS Setup program, press < DEL > key immediately after you turn on the system. The following message "Press DEL to enter SETUP" should appear in the lower left hand corner of your screen. When you enter the CMOS Setup Utility, the Main Menu will be displayed as **Figure 3-1**. You can use arrow keys to select your function, press < Enter > key to accept the selection and enter the sub-menu.

Figure 3-1. CMOS Setup Utility Main Screen



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Appendix A <I/O Port Pin Assignment>

A.1 <IDE Port>

Connector: **IDE1**

Type: 44-pin (22 x 2) box header

Pin	Description	Pin	Description
1	Reset	2	Ground
3	D7	4	D8
5	D6	6	D9
7	D5	8	D10
9	D4	10	D11
11	D3	12	D12
13	D2	14	D13
15	D1	16	D14
17	D0	18	D15
19	Ground	20	N/C
21	REQ	22	Ground
23	-IOW	24	Ground
25	-IOR	26	Ground
27	IORDY	28	Ground
29	DACK	30	Ground
31	IRQ14	32	N/C
33	A1	34	GPI1
35	A0	36	A2
37	-CS1	38	-CS3
39	-HD LED1	40	Ground
41	+5V	42	+5V
43	Ground	44	Ground

A.2 <Floppy Port>

Connector: **FDD**

Type: 26-pin connector

Pin	Description	Pin	Description
1	VCC	2	INDEX
3	VCC	4	DRV0
5	VCC	6	DSKCHG
7	DRV1	8	N/C
9	MTR1	10	MTR0
11	RPM	12	DIR
13	N/C	14	STEP
15	Ground	16	WRITE DATA
17	Ground	18	WRITE GATE
19	N/C	20	TRACK 0
21	N/C	22	WRPTR
23	Ground	24	RDATA-
25	Ground	26	SEL

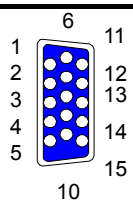
A.3 <IrDA Port>

Connector: **CN_IR**

Type: 5-pin header for SIR Ports

Pin	Description
1	VCC
2	N/C
3	IRRX
4	Ground
5	IRTX

A.4 < VGA Port >

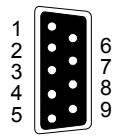


Connector: **CRT**

Type: 15-pin D-sub female connector on bracket

Pin	Description	Pin	Description	Pin	Description
1	RED	6	Ground	11	N/C
2	GREEN	7	Ground	12	5VSDA
3	BLUE	8	Ground	13	HSYNC
4	N/C	9	N/C	14	VSYNC
5	Ground	10	Ground	15	5VSCL

A.5 <Serial Port>



Connector: **COM1**

Type: 9-pin D-sub male connector on bracket

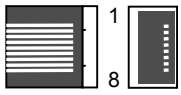
Pin	Description	Pin	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	-XR
5	Ground		

Connector: **CN_COM2**

Type: 10-pin (2 x 5) 1.27mm x 2.54mm-pitch header

Pin	Description	Pin	Description
1	DCD	2	
3	RXD	4	RTS
5	TXD	6	CTS
7	DTR	8	-XR
9	Ground	10	

A.6 <LAN Port>

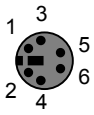


Connector: **RJ45**

Type: RJ45 connector with LED on bracket

Pin	1	2	3	4	5	6	7	8
Description	TX+	TX-	RX+	RX-	N/C	N/C	N/C	N/C

A.7 <PS/2 Keyboard & Mouse Port>



Connector: **PS2**

Type: 6-pin Mini-DIN connector on bracket

Pin	1	2	3	4	5	6
Description	KBD	MSD	Ground	VCC	KBC	MSC

Note: The PS/2 connector supports standard PS/2 keyboard directly or both PS/2 keyboard and mouse through the PS/2 Y-type cable.

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Appendix B <Flash BIOS>

B.1 BIOS Auto Flash Tool

The board is based on Award BIOS and can be updated easily by the BIOS auto flash tool. You can download the tool online at the address below:

http://www.award.com
http://www.commell.com.tw/support/support.htm

File name of the tool is "awdflash.exe", it's the utility that can write the data into the BIOS flash ship and update the BIOS.

B.2 Flash Method

1. Please make a bootable floppy disk.
2. Get the last .bin files you want to update and copy it into the disk.
3. Copy awardflash.exe to the disk.
4. Power on the system and flash the BIOS. (Example: C:/ awardflash XXX.bin)
5. Re-star the system.

Any question about the BIOS re-flash please contact your distributors or visit the web-site at below:

http://www.commell.com.tw/support/support.htm

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Appendix C <Hardware Test>

C.1 <Power Consumption Test>

Hardware		
Board	LE-370Z	
CPU	Intel® Celeron® M 600MHz	
Memory	Infineon DDR333 512MB x1	
HDD	Hitachi IC25N080ATMR04 80GB	
CDROM	SDR-038 4x DVD-ROM	(not counted)
Power Supply	SEVENTEAM ST-402HLP	
Software		
OS	Windows XP SP1 English Version	
Application	3DMARK 2003	
Test Result		
	Without LCD panel	24W
	With 10.4" LCD panel	30W
	With 15" LCD panel	38.4W
	With 17" LCD panel	50W

Contact Information

Any advice or comment about our products and service, or anything we can help you please don't hesitate to contact with us. We will do our best to support you for your p

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